Prof. Ufuk SAKARYA

Personal Information

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International Researcher IDs
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Biography

Ufuk Sakarya was born in 1976. He received his B.Sc. and M.Sc. degrees in electrical and electronics engineering from Middle East Technical University in 1998 and 2002 respectively. During his M.Sc. thesis, he worked on constructing of surface topography from multiple images that are illuminated from different light source directions. He received his Ph.D. degree in electronics engineering from Ankara University in 2009. In his Ph.D. thesis, graph theoretic three video scene detection methods were proposed to detect high-level temporal video segments. He was Assoc. Prof. of Electrical and Electronics Engineering at TÜBİTAK UZAY in 2018.

He worked at Yildiz Technical University, Faculty of Applied Sciences, Department of Aviation Electronics as an Assoc. Prof. Dr. between March 2019 and April 2024. He has also been Head of Department of Aviation Electronics since 20 March 2019. He is the first Head of Department of Aviation Electronics. He has also been The Member of Board of Administration and The Member of Board of Faculty of Faculty of Applied Sciences since 20 August 2019. He has currently worked at Yildiz Technical University, Faculty of Electrical and Electronics, Department of Electronics and Communication Engineering as a Prof. Dr. since 02 April 2024.

His main research topics are pattern recognition, remote sensing, computer vision, avionics, image and video processing, forensic science. He has co-authored more than 60 publications in the related areas.

He worked at TÜBİTAK UZAY (The Scientific and Technological Research Council of Türkiye, Space Technologies Research Institute) as a researcher between 1998 and 2009. He completed the military service in 2010. After the military service, he worked at TÜBİTAK UZAY until 1 March 2019. He was a Group Leader in Remote Sensing Group of TÜBİTAK UZAY between 02 March 2015 and 05 September 2018. He has basically worked on the projects that are closely related with image and video processing. He was working in the related projects as project manager, system designer and software developer. He has worked as a chief researcher on the project of developing an automated firearms identification system called by "Balistika 2010". He has also worked on the images of RASAT, which is the first earth observation satellite built in Türkiye. He studied on the radiometric calibration of GÖKTÜRK-2 satellite sensor. He worked on the hyperspectral image processing and dimension reduction methods in high-dimensional data processing. In addition, he worked on developing of TÜRKSAT 6A which is the first communication satellite building in Türkiye.

He was a chairman and member of BHİKPK – BARKOK (Coordination and Planning Committee of Map Works Inter Ministries - Scientific Research and Coordination Commission) in Türkiye between 2015 and 2017. He has also been

United Nations (UN) Economic and Social Commission for Asia and the Pacific (ESCAP) Drafting Committee Member of Asia-Pacific Plan of Action for Space Applications for Sustainable Development (2018-2030) in 2018. In addition, he was Group on Earth Observations (GEO) European High Level Working Group (HLWG) Member of Türkiye in 2018.

He speaks Turkish (Native) and English. He is married and he has two children.

Education Information

Doctorate, Ankara University, Fen Bilimleri Enstitüsü, Elektronik Müh. Abd., Turkey 2002 - 2009
Postgraduate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Elektrik Ve Elektronik Müh.Abd., Turkey 1999 - 2002
Undergraduate, Middle East Technical University, Faculty Of Engineering, Elektrik Ve Elektronik Müh.Böl., Turkey 1994 - 1998

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Videolarda İçerik Dizinleme Amaçlı Çizge Kuramsal Sahne Sezme, Ankara Üniversitesi, Fen Bilimleri Enstitüsü, Elektronik Müh. Abd., 2009
Postgraduate, Integration of Photometric Stereo and Shape From Shading Algorithms, Orta Doğu Teknik Üniversitesi, Fen Bilimleri Enstitüsü , Elektrik Ve Elektronik Müh.Abd., 2002

Research Areas

Geotechnical Engineering, Geographic Information Systems, Earth Observations (Remote Sensing), Information Systems, Communication and Control Engineering, Robotics and Mechatronics Systems, Computer Vision, Signal Processing, Image and Video Processing, Pattern Recognition and Analysis, Signal Processing Theory and Methods, Computer Sciences, Artificial Intelligence, Computer Learning and Pattern Recognition, Pattern Recognition and Image Processing, Software, Software Engineering, Aeronautical and Space Engineering, Space Engineering, Software, Object-oriented programming, Engineering and Technology

Academic Titles / Tasks

Professor, Yildiz Technical University, Faculty Of Electrical & Electronics, Electronics And Communication Engineering, 2024 - Continues
Associate Professor, Yildiz Technical University, Faculty Of Applied Sciences, Aviation Electronics, 2019 - 2024

Academic and Administrative Experience

Fakülte Kurulu Üyesi, Yildiz Technical University, Faculty of Applied Sciences, 2019 - Continues
Fakülte Yönetim Kurulu Üyesi, Yildiz Technical University, Faculty of Applied Sciences, 2019 - Continues
Yıldız Teknik Üniversitesi, Faculty of Applied Sciences, Havacılık Elektroniği Bölümü, 2019 - Continues

Courses

Microprocessor Systems, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022
Introduction to System Engineering in Aviation Electronics, Undergraduate, 2022 - 2023, 2021 - 2022
Introduction to Aviation Systems, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022
Satellite and Electronic Equipments, Undergraduate, 2022 - 2023
Signals and Systems, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021
Satellite Communication, Undergraduate, 2023 - 2024
Fundamentals of Electrical Circuits, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020
Circuit and Systems Analysis, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021
Pattern Recognition in Multi-Sensor Systems, Doctorate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020
Signals and Systems, Applications in Control Engineering, Undergraduate, 2019 - 2020

Advising Theses

Sakarya U., Türkiye'deki Yer İstasyonu ile Antarktika'daki İnsansız Hava Aracı Arasındaki Haberleşme İçin Uydu Sistemi Tasarımı, Postgraduate, M.İLAYDA(Student), 2023
Sakarya U., Havacılıkta Sayısal Video Veri Yolu Standardı Araştırması, Postgraduate, A.PAMUK(Student), 2023
Sakarya U., Gemiler Arasında Kargo Transferi İçin Dikey İniş KalkışYapabilen İnsansız Hava Aracı Uçuş Kontrol BilgisayarıKavramsal Sistem Tasarımı, Postgraduate, M.ŞAHİN(Student), 2023
Sakarya U., Ömürlü V. E., IMAGE PROCESSING BASED NAVIGATION IN AVIATION, Postgraduate, H.GENCO(Student), 2023
Sakarya U., Change Impact Analysis for Software Configuration Management in Aviation, Postgraduate, N.HINIK(Student), 2022
Sakarya U., Kalman Filter Implementation on Field-programmable Gate Array for Navigation Applications, Postgraduate, M.MERT(Student), 2022
Sakarya U., Havacılık Uygulamaları için Sahada Programlanabilir Kapı Dizilerini Kullanarak İzleme, Postgraduate, F.YÜKSEL(Student), 2022
Sakarya U., Hökelek İ., Universal Verification Methodology Case Study on Field Programmable Gate Array for Hardware Certification in Aviation, Postgraduate, İ.AYAZ(Student), 2022
Sakarya U., GESTURE RECOGNITION FOR HUMAN-MACHINE INTERACTION IN AVIATION, Postgraduate, T.ZEYBEK(Student), 2022
Sakarya U., Multi-Sensor Data Fusion for Path Prediction of Escaping from Engagement in Combat Aircraft, Postgraduate, E.NURULLAH(Student), 2022

Designed Lessons

Sakarya U., Satellite and Electronic Equipments , Undergraduate, 2022 - 2023
Sakarya U., Microprocessor Systems , Undergraduate, 2021 - 2022
Sakarya U., Circuit and Systems Analysis, Undergraduate, 2020 - 2021
Sakarya U., Signals and Systems, Undergraduate, 2020 - 2021
Sakarya U., Pattern Recognition in Multi-Sensor Systems, Doctorate, 2019 - 2020
Sakarya U., Fundamentals of Electrical Circuits, Undergraduate, 2019 - 2020

Published journal articles indexed by SCI, SSCI, and AHCI

I. **The visual-based robotic language for industry 4.0 applications: Robotic U Language**
SAKARYA U.
Signal, Image and Video Processing, vol.18, no.1, pp.91-98, 2024 (SCI-Expanded)

II. **Wavelet-Based Gesture Recognition Method for Human-Machine Interaction in Aviation**
Zeybek T., SAKARYA U.
Journal of Intelligent and Robotic Systems: Theory and Applications, vol.109, no.2, 2023 (SCI-Expanded)

III. **DNA Chromatogram Classification Using Entropy-Based Features and Supervised Dimension Reduction Based on Global and Local Pattern Information**
ÖZ E., YİĞİT Ö. E., SAKARYA U.
International Journal of Pattern Recognition and Artificial Intelligence, vol.37, no.12, 2023 (SCI-Expanded)

IV. **Universal verification methodology-based airborne electronic hardware certification approach for ARINC-429**
Ayaz I., SAKARYA U., Hokelek I.
Aircraft Engineering and Aerospace Technology, vol.95, no.7, pp.1145-1150, 2023 (SCI-Expanded)

V. **Semi-supervised dimension reduction approaches integrating global and local pattern information**
Sakarya U.
SIGNAL IMAGE AND VIDEO PROCESSING, vol.13, no.1, pp.171-178, 2019 (SCI-Expanded)

VI. **SAR image time-series analysis framework using morphological operators and global and local information-based linear discriminant analysis**
Sakarya U., DEMIRPOLAT C.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.26, no.6, pp.2958-2966, 2018 (SCI-Expanded)

VII. **Dimension reduction using global and local pattern information-based maximum margin criterion**
Sakarya U.
SIGNAL IMAGE AND VIDEO PROCESSING, vol.10, no.5, pp.903-909, 2016 (SCI-Expanded)

VIII. **The performance of BALISTIKA 2010 system for 9 mm x 19 mm and 7.65 mm x 17 mm cartridge case correlation**
OGUNC G. I., ORALLI A., KARA H., SAYAR A., Sakarya U., ARICAN Y. E.
FORENSIC SCIENCE INTERNATIONAL, vol.232, pp.104-110, 2013 (SCI-Expanded)

IX. **Automated region segmentation on cartridge case base**
Sakarya U., TOPCU O., LELOGLU U. M., SOYSAL M., TUNALI E.
FORENSIC SCIENCE INTERNATIONAL, vol.222, pp.277-287, 2012 (SCI-Expanded)

X. **Dominant sets based movie scene detection**
Sakarya U., Telatar Z., ALATAN A. A.
SIGNAL PROCESSING, vol.92, no.1, pp.107-119, 2012 (SCI-Expanded)

XI. **Video scene detection using graph-based representations**
Sakarya U., Telatar Z.
SIGNAL PROCESSING-IMAGE COMMUNICATION, vol.25, no.10, pp.774-783, 2010 (SCI-Expanded)

XII. **Graph-based multilevel temporal video segmentation**
Sakarya U., Telatar Z.
MULTIMEDIA SYSTEMS, vol.14, no.5, pp.277-290, 2008 (SCI-Expanded)

XIII. **Three-dimensional surface reconstruction for cartridge cases using photometric stereo**
Sakarya U., LELOGLU U. M., TUNALI E.
FORENSIC SCIENCE INTERNATIONAL, vol.175, pp.209-217, 2008 (SCI-Expanded)

XIV. **An improved method of photometric stereo using local shape from shading**
Sakarya U., Erkmen I.
IMAGE AND VISION COMPUTING, vol.21, no.11, pp.941-954, 2003 (SCI-Expanded)

Articles Published in Other Journals

I. **A Review On the Possibility of Using the Video Data Bus Standard in Aviation for Smart Vehicles**
Pamuk A., Sakarya U.
Konya mühendislik bilimleri dergisi (Online), vol.11, no.1, pp.300-311, 2023 (Peer-Reviewed Journal)

II. **System Engineering-Based Conceptual Design of Indoor Navigation System of Unmanned Aerial Vehicles**
Paşaoğlu M., Canseven M. F., Işık H. B., Demir D. G., Sakarya U.
European Journal of Engineering and Applied Sciences, vol.5, no.2, pp.86-93, 2022 (Peer-Reviewed Journal)

III. **Change Impact Analysis Case Study for Aviation: Mutation Testing**
Hınık N., Çağırıcı Ö., Sakarya U.
The European Journal of Research and Development, vol.2, no.2, pp.213-223, 2022 (Peer-Reviewed Journal)

IV. **Multi-Sensor Data Fusion for Path Prediction of Escaping from Engagement in Unmanned Aerial Vehicle Scenario**
Gökal E. N., Sakarya U.
European Journal of Science and Technology, vol.32, pp.705-710, 2021 (Peer-Reviewed Journal)

V. **Kalman Filter Implementation on Field-programmable Gate Array for Navigation Applications of Unmanned Aerial Vehicles**
Deniz M. M., Sakarya U.
European Journal of Science and Technology, vol.28, pp.152-156, 2021 (Peer-Reviewed Journal)

VI. **Tracing Research Using Field Programmable Gate Arrays for Aviation Applications**
Yüksel F., Sakarya U.
European Journal of Science and Technology, vol.28, pp.130-134, 2021 (Peer-Reviewed Journal)

VII. **The Cloned Cartridge Case Correlation Performance of A Computerized Ballistic Identification Systems**
Öğünç G. İ., Sakarya U., Orallı A., Sayar A., Yılmaz A., Usta S.
AFTE Journal, vol.50, no.4, pp.221-229, 2018 (Scopus)

Books & Book Chapters

I. **Topaklama**
Sakarya U.
in: Makine Öğrenmesinde Sınıflandırma Yöntemleri ve R Uygulamaları, Selçuk Alp,Ersoy Öz, Editor, Nobel Akademik Yayıncılık, Ankara, pp.189-215, 2019

Refereed Congress / Symposium Publications in Proceedings

I. **Aviyonik Sistemler için FPGA Tabanlı Güvenlik Kritik Video İletimi**
Üstüner Y., Sakarya U., Levent V. E.
V. International İstanbul Current Scientific Research Congress, İstanbul, Turkey, 1 - 03 April 2024, pp.647-652

II. **Low Earth Orbit-Based Small-Size Constellation Satellite System Design For Communication Between Türkiye and Antarctica**
Boduroglu M. I., SAKARYA U.
10th International Conference on Recent Advances in Air and Space Technologies, RAST 2023, İstanbul, Turkey, 7 - 09 June 2023

III. **Hyperspectral Image Classification Using Iterative Auto-Weighted Dimension Reduction**
SAKARYA U.
2022 IEEE Mediterranean and Middle-East Geoscience and Remote Sensing Symposium, M2GARSS 2022, Virtual, Online, Turkey, 7 - 09 March 2022, pp.94-97

IV. **Wavelet-based Spatial-temporal Feature Extraction for Gesture Recognition**
Zeybek T., SAKARYA U.
3rd International Congress on Human-Computer Interaction, Optimization and Robotic Applications, HORA 2021, Ankara, Turkey, 11 - 13 June 2021

V. **Universal Verification Methodology Application of ARINC-429 for Airborne Electronic Hardware**

Certification

Ayaz I., SAKARYA U., Hökelek I.

13th International Conference on Electrical and Electronics Engineering, ELECO 2021, Virtual, Bursa, Turkey, 25 - 27 November 2021, pp.162-166

VI. **SAR image time series analysis in vegetation classification using global and local information based linear discriminant analysis**

SAKARYA U., DEMIRPOLAT c.

2017 25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, Turkey, 15 - 18 May 2017

VII. **Radiometric cross-calibration of Göktürk-2 with Landsat 8**

DEMİRHAN i. h., DEVECİ h. s., SAKARYA U.

2017 25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, Turkey, 15 - 18 May 2017

VIII. **TÜBİTAK UZAY'daki Uzaktan Algılama ile Akıllı Tarım Çalışmaları**

ŞİMŞEK F., DEMIRPOLAT C., BERKE E., KALKAN K., TEKE M., KÜPÇÜ R., ÖZTOPRAK F., EFENDİOĞLU M., DEVECİ H. S., SAKARYA U.

Dünya CBS Günü 2016, İstanbul, Turkey, 24 November 2016

IX. **Coğrafi Bilgi Sistemleri Bakış Açısı ile TÜBİTAK UZAY Uzaktan Algılama Grubu Araştırmaları**

SAKARYA U., KÜPÇÜ R., TEKE M., DEVECİ H. S., ÖZTOPRAK A. F., BERKE e., DEMİRHAN İ. H., EFENDİOĞLU M., DEMIRPOLAT C., GÜRCAN İ., et al.

Dünya CBS Günü 2016, İstanbul, Turkey, 24 - 25 November 2016

X. **Hiperspektral uydu kamerasinin yerden mutlak radyometrik kalibrasyonu için ön araştirma sonuçları**

DEMİRHAN İ. H., SAKARYA U.

VI. Uzaktan Algılama ve Coğrafi Bilgi Sistemleri Sempozyumu (UZAL-CBS 2016), Adana, Turkey, 5 - 07 October 2016

XI. **Absolute radiometric calibration of the Göktürk-2 satellite sensor using Tuz Gölü (landnet site) from NDVI perspective**

SAKARYA U., DEMİRHAN İ. H., DEVECİ H. S., TEKE M., DEMİRKESEN C., KÜPÇÜ R., ÖZTOPRAK A. F., EFENDİOĞLU M., ŞİMŞEK F. F., BERKE E., et al.

XXIII ISPRS Congress, Prague, Czech Republic, 12 - 19 July 2016

XII. **The Benefits and Challenges Having an Open and Free Basis Satellite Data Sharing Platform in Turkey: GEZGİN**

DEVECİ H. S., KORU A., SAKARYA U., TEVRİZOĞLU İ., TEKE M., KÜPÇÜ R., AVENOĞLU B., DEMİRKESEN C., GÜRBÜZ S. Z., ÖZTOPRAK A. F., et al.

XXIII ISPRS Congress, Prague, Czech Republic, 12 - 19 July 2016

XIII. **Since 2012 to 2015: Remote Sensing Research at TÜBİTAK UZAY**

SAKARYA U., TEKE M., DEMİRKESEN C., KÜPÇÜ R., DEVECİ H. S., ÖZTOPRAK A. F., BERKE E., DEMİRHAN İ. H., EFENDİOĞLU M., KOZAL A. Ö., et al.

The 5th International Conference on Earth Observation for Global Changes (EOGC 2015) and the 7th International Conference on Geo-information Technologies for Natural Disaster Management (GiT4NDM 2015), Al Ain, United Arab Emirates, 8 - 10 December 2015

XIV. **Thermal infrared hyperspectral dimension reduction experiment results for global and local information based linear discriminant analysis**

SAKARYA U.

2015 23nd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, Turkey, 16 - 19 May 2015

XV. **Evaluation of clustering performance of hyperspectral bands**

HALİLOĞLU O., SAKARYA U., TÖREYİN B. U.

2015 23nd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, Turkey, 16 - 19 May 2015

XVI. **TÜBİTAK UZAY da Hiperspektral Görüntü İşleme Araştırmaları 2012 2014**
SAKARYA U., TEKE M., DEMİRKESEN C., HALİLOĞLU O., KOZAL A. Ö., DEVECİ H. S., ÖZTOPRAK A. F., TÖREYİN B. U.,
GÜRBÜZ S. Z.
TMMOB Harita ve Kadastro Mühendisleri Odası, 15. Türkiye Harita Bilimsel ve Teknik Kurultayı, Ankara, Turkey, 25
- 28 March 2015

XVII. **A Short Survey of Hyperspectral Remote Sensing and Hyperspectral Remote Sensing Research At
TUBITAK UZAY**
Sakarya U., TEKE M., DEMİRKESEN C., HALİLOĞLU O., KOZAL A. O., DEVECİ H. S., Oztoprak A. F., TÖREYİN B. U.,
GÜRBÜZ S. Z.
7th International Conference on Recent Advances in Space Technologies (RAST), İstanbul, Turkey, 16 - 19 June
2015, pp.187-192

XVIII. **Afet Yönetiminde Algılayıcı Teknolojilerinin Kullanımı**
DEMİRKESEN C., GÜRBÜZ S. Z., SAKARYA U., DEVECİ H. S., TANKIZ S., ÖZTOPRAK F., YILMAZ Ö., ATIL İ., ARABACI M.
A., AKBABA N., et al.
V. Uzaktan Algılama ve Coğrafi Bilgi Sistemleri Sempozyumu (UZAL-CBS 2014), İstanbul, Turkey, 14 - 17 October
2014

XIX. **Afet yönetiminde görüntü işleme uygulamlarının kısa bir incelemesi ve RASAT ile örnek uygulamalar**
SAKARYA U., GÜRBÜZ S. Z., DEMİRKESEN C., DEVECİ H. S., TANKIZ S., ÖZTOPRAK A. F., YILMAZ Ö., ATIL İ., ARABACI
M. A., AKBABA N., et al.
V. Uzaktan Algılama ve Coğrafi Bilgi Sistemleri Sempozyumu (UZAL-CBS 2014), İstanbul, Turkey, 14 - 17 October
2014

XX. **Hyperspectral dimension reduction using global and local information based linear discriminant
analysis**
SAKARYA U.
ISPRS Technical Commission VII Symposium, İstanbul, Turkey, 13 - 18 July 2014, vol.7, pp.61-66

XXI. **Unsharp masking filter based shadow invariant feature extraction for hyperspectral signatures**
SAKARYA U., DEMİRKESEN C., TEKE M.
2014 22nd Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, Turkey, 23 -
25 April 2014

XXII. **HYPERSPECTRAL IMAGES AND LIDAR BASED DEM FUSION: A MULTI-MODAL LANDUSE
CLASSIFICATION STRATEGY**
DEMİRKESEN C., TEKE M., Sakarya U.
IEEE Joint International Geoscience and Remote Sensing Symposium (IGARSS) / 35th Canadian Symposium on
Remote Sensing, Quebec City, Canada, 13 - 18 July 2014

XXIII. **A Multi Modal Landuse Classification Architecture Based on Hyperspectral DEM Fusion**
DEMİRKESEN C., TEKE M., SAKARYA U.
APSCO 5th International Symposium on Satellite Remote Sensing and Geographic Information System Development
in Asia-Pacific Region, Ankara, Turkey, 8 - 10 October 2013, pp.21-23

XXIV. **Hyperspectral image processing researches at TÜBİTAK UZAY**
SAKARYA U., TEKE M., DEMİRKESEN C., HALİLOĞLU O., KOZAL A. Ö., DEVECİ H. S., TÖREYİN B. U., GÜRBÜZ S. Z.
APSCO 5th International Symposium on Satellite Remote Sensing and Geographic Information System Development
in Asia-Pacific Region, Ankara, Turkey, 8 - 10 October 2013, pp.8-10

XXV. **Sub band decomposition based supervised feature extraction for hyperspectral image classification**
HALİLOĞLU O., SAKARYA U., TÖREYİN B. U.
MUSCLE International Workshop on Computational Intelligence for Multimedia Understanding, Antalya, Turkey, 3 -
04 October 2013

XXVI. **Classification on hyperspectral images using Enhanced Fisher Discriminant Criterion**
TEKE M., SAKARYA U.
2013 21st Signal Processing and Communications Applications Conference (SIU), Girne, Cyprus (Kktc), 24 - 26
April 2013

XXVII. **A Short Survey of Hyperspectral Remote Sensing Applications in Agriculture**

TEKE M., DEVECİ H. S., HALİLOĞLU O., GÜRBÜZ S. Z., Sakarya U.

6th International Conference on Recent Advances in Space Technologies (RAST), İstanbul, Turkey, 12 - 14 June 2013, pp.171-176

XXVIII. **Uzaktan algılamada RASAT Türkiye de üretilen ilk yer gözlem uydusu**

KAHRAMAN Ö., ÖZEN H., DEMİRCİOĞLU E., SAKARYA U., KÜPÇÜ R., AVENOĞLU B., İMRE E., BANK E.

IV. Uzaktan Algılama ve Coğrafi Bilgi Sistemleri Sempozyumu (UZAL-CBS 2012), Zonguldak, Turkey, 16 - 19 October 2012

XXIX. **Global shape characteristics based classification for firearm brand detection**

GÖNÜLALAN C., LELOĞLU U. M., SAKARYA U.

2012 20th Signal Processing and Communications Applications Conference (SIU), Mugla, Turkey, Turkey, 18 - 20 April 2012

XXX. **Bullet matching using profile clustering**

ACAR E., TETİKER F., OSKAY ACAR B., SAKARYA U.

Proceedings of The 2 nd International Symposium on Computing in Science & Engineering (ISCSE 2011), Kuşadası, Aydın, Turkey, 1 - 04 June 2011, pp.483-488

XXXI. **Bullet matching using SIFT feature**

SAYAR A., TETİKER F., ACAR E., OSKAY ACAR B., SAKARYA U.

2011 IEEE 19th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, Turkey, 20 - 22 April 2011

XXXII. **A Case Study of an Automated Firearms Identification System BALİSTİKA 2010**

SAKARYA U., ES Ş. A., LELOĞLU U. M., TUNALI E., BİRGÜL Ö.

BIT's 1st Annual World Congress of Forensics (WCF-2010), Dalian, China, 21 - 23 October 2010

XXXIII. **Effects of noises in images used for height map reconstruction of cartridge cases using photometric stereo**

ÖZTÜRK O. A., BİRGÜL Ö., ESEN E., SAKARYA U.

2009 IEEE 17th Signal Processing and Communications Applications Conference, Antalya, Turkey, Turkey, 9 - 11 April 2009

XXXIV. **Video content analysis using dominant sets**

SAKARYA U., TELATAR Z.

2009 IEEE 17th Signal Processing and Communications Applications Conference, Antalya, Turkey, Turkey, 9 - 11 April 2009

XXXV. **Video scene detection using dominant sets**

Sakarya U., Telatar Z.

2008 IEEE International Conference on Image Processing, ICIP 2008, San Diego, CA, United States Of America, 12 - 15 October 2008, pp.73-76

XXXVI. **A graph based approach for video scene detection**

SAKARYA U., TELATAR Z.

2008 IEEE 16th Signal Processing, Communication and Applications Conference, Aydin, Turkey, Turkey, 20 - 22 April 2008

XXXVII. **Graph partition based scene boundary detection**

Sakarya U., Telatar Z.

ISPA 2007 - 5th International Symposium on Image and Signal Processing and Analysis, İstanbul, Turkey, 27 - 29 September 2007, pp.544-549

XXXVIII. **Graph based multilevel temporal segmentation of scripted content videos**

SAKARYA U., TELATAR Z.

The 6th IAPR-TC-15 International Workshop on Graph-Based Representations in Pattern Recognition (GbRPR 2007), Alicante, Spain, 11 - 13 June 2007

XXXIX. **Performance results of the improved method of photometric stereo using local shape from shading on variable albedo samples**

SAKARYA U., ERKMEN İ.

Proceedings of the IEEE 12th Signal Processing and Communications Applications Conference, 2004., Kusadasi,

Turkiye, Turkey, 28 - 30 April 2004

XL. **GAYE: A face recognition system**
KEPENEKÇİ B., TEK F. B., ÇİLİNGİR O., Sakarya U., AKAR G.
Conference on Image Processing - Algorithms and Systems III, San-Jose, Costa Rica, 19 - 21 January 2004, vol.5298, pp.99-106

XLI. **A comparative performance test of a new ballistic analysis system BALISTIKA**
LELOĞLU U. M., SAKARYA U., TEK F. B., ÇİLİNGİR O., TUNALI E.
3rd European-Academy-of-Forensic-Science Meeting, İstanbul, Turkey, 22 - 27 September 2003

XLII. **A new automated firearms identification system using 3D information Balistika**
LELOĞLU U. M., SAKARYA U., TEK F. B., ÇİLİNGİR O., YERLİKAYA M.
3rd European-Academy-of-Forensic-Science Meeting, İstanbul, Turkey, 22 - 27 September 2003

XLIII. **Güvenlik amaçlı yüz tanıma sistemi GAYE**
KEPENEKÇİ B., TEK F. B., ÇİLİNGİR O., SAKARYA U., AKAR G.
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Other, pp.1-23, 2009

VI. **Use of graphics processing unit (GPU) in the investigation of marks used in criminology**
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Supported Projects

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SAKARYA U., TUBITAK Project, TÜRKSAT 6-A Yerli Haberleşme Uydusu Geliştirilmesi ve Üretimi, 2015 - 2019
SAKARYA U., EU Framework Program Project, Coordinating and integRating state-of-the-art Earth Observation Activities in the regions of North Africa, Middle East, and Balkans and Developing Links with GEO related initiatives towards

GEOSS, 2016 - 2018

SAKARYA U., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, Uydu Görüntü İşleme ve Geoportal Oluşturma Projesi, 2013 - 2018

SAKARYA U., Project Supported by Other Official Institutions, GAP Bölgesinde Hassas Tarım ve Sürdürülebilir Uygulamaların Yaygınlaştırılması Projesi, 2014 - 2017

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Memberships / Tasks in Scientific Organizations

Bilimsel Araştırma ve Koordinasyon Komisyonu (BARKOK), Chairman, 2015 - 2017

Scientific Refereeing

SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, Journal Indexed in ESCI, June 2024

32. IEEE Sinyal İşleme ve İletişim Uygulamaları Kurultayı, Conference Paper (Full Text), March 2024

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PATTERN RECOGNITION, SCI Journal, December 2021

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Sigma Journal of Engineering and Natural Sciences, Journal Indexed in ESCI, November 2021

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TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCI-E, February 2020

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SIGNAL IMAGE AND VIDEO PROCESSING, Journal Indexed in SCI-E, October 2019

PATTERN RECOGNITION, SCI Journal, September 2019

Turkish Journal Of Electrical Engineering And Computer Sciences, Journal Indexed in SCI-E, August 2019

SIGNAL IMAGE AND VIDEO PROCESSING, Journal Indexed in SCI-E, May 2019

SIGNAL IMAGE AND VIDEO PROCESSING, Journal Indexed in SCI-E, March 2019

PATTERN RECOGNITION, SCI Journal, March 2019

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IEEE GEOSCIENCE AND REMOTE SENSING LETTERS, Journal Indexed in SCI-E, June 2016

TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCI-E, June 2016

IEEE TRANSACTIONS ON CYBERNETICS, SCI Journal, June 2016

FRONTIERS OF INFORMATION TECHNOLOGY & ELECTRONIC ENGINEERING, Journal Indexed in SCI-E, December 2015

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SIGNAL IMAGE AND VIDEO PROCESSING, Journal Indexed in SCI-E, September 2014

SIGNAL IMAGE AND VIDEO PROCESSING, Journal Indexed in SCI-E, January 2014

SIGNAL PROCESSING-IMAGE COMMUNICATION, SCI Journal, October 2013

Scientific Research / Working Group Memberships

Group on Earth Observations (GEO) European High Level Working Group (HLWG), Avrupa Birliği, Belçika, http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail&groupID=1781, 2018 - 2018
Drafting Committee Member of Asia-Pacific Plan of Action for Space Applications for Sustainable Development (2018-2030), United Nations (UN) Economic and Social Commission for Asia and the Pacific (ESCAP), Tayland, http://www.unescap.org/, 2018 - 2018

Metrics

Publication: 71
Citation (WoS): 114
Citation (Scopus): 278
H-Index (WoS): 8
H-Index (Scopus): 7

Congress and Symposium Activities

VI. Uzaktan Algılama ve Coğrafi Bilgi Sistemleri Sempozyumu (UZAL-CBS 2016), YERLİ UZAKTAN ALGILAMA UYDULARIMIZ PANELİ, Panelists, Adana, Turkey, 2016

Non Academic Experience

TÜBİTAK UZAY
MİLLİ SAVUNMA BAKANLIĞI
TÜBİTAK UZAY
TÜBİTAK UZAY
TÜBİTAK UZAY